

SEQ ID NO:16

Rat Smooth Muscle Myosin Heavy Chain Gene Sequence (-4,216 to +11,795)

Nucleotide 1 corresponds to -4,216 bp relative to the SM-MHC transcription start site

5' *Sub*
aa

10	AGATCTTAAA	ACACATCAAC	CTGGGCTGAG	GGGATGTGTG	TCTCTGTGTC	TGTGTATGCA	60
	CATGCATTTG	AGGCCAGATG	AAAATGTCAG	ATGTCCTCTC	ACTGCTTTAT	TCCCTTGAGA	120
	CAGGGTCCCT	CACTGAACCT	GTTGGAGCTA	TGCTGGTAGC	CAGCAAGCCC	CAGTGGCCTT	180
	CCTGTCTCTA	TCTCACACAG	CACAATATGT	GTGGCCATGC	TCCACTTTTT	TACATGGAAA	240
	TTGGGGTCTT	CCAACTGGGG	TTCTCATTTG	TGCAGTGACA	CTCTTCCCCA	CTGAGCCATC	300
	TCCTCAGGCC	AGCTGATATA	TTTTTAAATA	ATTAAATATT	TAGCACATGC	CTTTAGAAGC	360
	CAATAGCTAT	TTAAAGCTGT	TTGCTTAAAA	AAAAAAAAAA	AAAAAAGACT	TCATTATCCC	420
15	AACACTTATG	AGGGAGAGAC	AATAATTCCA	AAACCAGAAC	CAGCCAGGGT	ACACAGTGAG	480
	ACTTTATTTA	AAAAAAAAAA	AAAAAGAAAG	AAAGAAAAAA	AAAAGAAAAA	GAAAAAATAA	540
	GGCTCCAAAG	AGAAATTTCC	CCTTCATCAT	CTAATCACAA	GAAAACAATT	TATTTATTTT	600
	GACATCACTC	AGTCCAAAGG	AGCTTTTTGT	AAAGTGACTT	CTCTTCTTAA	AATAAGTGAC	660
	CCTTCCCAAC	CACCAAAAAA	AAAACAGAAA	CCTCTGCCCT	GTTCTAGAGT	CCTTTTGAAG	720
	ACTTCAGATA	CCTGAAGAGT	GGACAGATAT	TTACCGAGTG	ACTTAAATGA	ACATACTGTC	780
20	CCTGGGTAAT	GCTCAAGCAT	GCCAGGAGAG	CATGGATGGT	TTATGCAAGG	CTGGCACTGT	840
	CATTAACAAC	TCAGTAAGGC	GGAGAAGACA	GAGAGCCTCT	CCTAAGACAA	TGGCACATAA	900
	GGACATGGGT	AACCCCAAG	GTTCCCGGCT	AGTACTTAGC	AGAGCTGAGA	TCAGACTTGG	960
	GCCTCTGTGC	TCGCTTGCCT	AGTGGGCAAC	ACTCAAGACT	GGGGTAAACA	ATAAGTTGAT	1020
	CTGGGATATG	GCTCAGTAAT	CACACTGAGA	ATTCAACACT	GGGAAGGCAG	AGGAGGATCC	1080
25	CTGGGATTGC	TGCCTGGCTC	TCTAGCAGCC	TAGCAGAATC	AACAACTCC	AGGTTTCAAGT	1140
	AGAGATGCTC	ACAAAATAAA	ATGGAGGAGC	AACTGAACAC	ACTCAGTGTT	GACCCACACA	1200
	CACACTAAAG	AACACGTGTA	CCACACAGAC	ACAGACACAG	GATAACCTAC	CCATGTTGTG	1260
	TATGGACTCA	GCCAGCCAG	GTTGGAAACT	CAGTTCCTCT	GTTAACTCTT	TTCAAACCTG	1320
	GGTCCTCAGC	GATGTGCTGG	GGAACCTACT	TCACGGCATT	ATTCTGGGCA	TTAGATGTAA	1380
30	AGGAAGCAGT	AAAGTTTCCC	TTTTCTTGAC	TGAGGTGATG	CGAGAATGAG	GGCCTGAATT	1440
	CCATCTCTAG	GAATCACATA	AAGACACCCA	GACTGCACTG	GCCAGTAAGC	CTCACCTATG	1500
	CCTCCAAGCC	TGGCTGTGAG	AGACTGTCTC	AAAAACAAAG	TAAAAACAAC	AAAATCAATG	1560
	TCAGATGTGC	ACACATCGAA	TCCCAGCATG	TGTACGGCAT	GCTTGCGAGT	AGCCTTGTTT	1620
35	ACAGAGAGTT	CTAGGCCAAC	CAGCTATACA	CAGTGAGACC	CTGTGGTAGA	CGGCTCCTAA	1680
	GAAGTGACAT	TTGTGACTGA	CAGATGTGCA	CATCTACCAC	ATGCACATCA	CAGTTTCCAT	1740
	TTTACAAAAA	GGTTAAACCT	TACTAATTGA	TTAGGGAGTG	GGGCACCCCA	CTGCTACATG	1800
	TGAAAGCCAG	AGAATGATGT	GTTCCAGTCG	GTCAGTTGTG	TCCTTCCACC	ATGATAGTCC	1860
	TAAAAAATGA	ACTCAAGGCA	GTCTTGCGAG	CAAGTGCTTT	ATCCATAGTG	CGATCTTATT	1920
	GGCCCAAGTCT	CCTTATAATG	AAATTATTTG	TGTTTCCAAG	TTGATGTAAT	TCTTTAAAAA	1980
40	TCAGCTGTGC	TCCTTGAGAGT	TTGACTTCAC	TGAAGCCTGC	TACAGGAGTG	CCCTTCCTTC	2040
	CTAGCACTAG	GATGGCCAGC	TCTGGGCTGG	TTTCAGACTA	GGGTAGGTGC	AGGTGGGCCC	2100
	TGGGCTTCCC	TCCTTCATTC	CTCCTGGGCT	CAATGCCAAG	CCGGTTTCCA	TTCTTTTAC	2160
	GTGCACTGCG	AAGAGGCTTT	GGGGAAGCGG	CCTCATCCAT	CATGCAGAGA	GCTCCTCCCC	2220
	CACCTCTACA	GAGAGCCAGC	CAAGCTGCTG	TCCTTGCTC	TGCTCTGTCC	ACCCTGTGAG	2280
45	GAGGCTGGGA	TGAGGTTGGG	GATGGGGAGG	ATCAGGATTC	AGATGTTTTT	AAGTCTGAGA	2340
	AGCAGGTGAG	CTTGGTCCTA	GAAGAATATG	GAAGGGTCT	ACTGGGGTTG	AGATATAGAT	2400
	CAGTGTATCA	AAGTCAACAG	GGGGGCTGTG	TGGCTTTTTT	ATATCCCAA	GTCAGCTTGG	2460
	TGCTGGTTTC	CTAGGCTTCC	TGAGTCCGAC	AAAGGTGCAG	TGTGTTAATC	TCACACCACT	2520
	TCAAGGACTG	TTACAAAAAA	AAAATAGGAA	GGAGCTCGAT	TCGCCCCCTT	TTACAGGCAG	2580
50	GGTAACTAAG	AGCCAGTACT	TGCCCATGGT	CCTGCTGTTA	TAAAGAGGCT	CAGTAGACTC	2640
	CCATTCAAAC	AACTGTGCTC	AGAGGCCTTC	TGTCGTCTCG	TGGCCAATT	CCCTATTGCT	2700
	CTCTGGAGTG	AATATTGGGA	TATTAAACAG	TACTGACCTT	GCTGAGGACC	CTCAGGGTAC	2760
	TCAGCTCTTC	TGGCCTGCAA	AATGGGGCTG	GGACAGGTTG	GCCAGGATCA	TCCTCTGGTT	2820
	GGGAGAACCA	GCTGCACGTG	GGTCTGGAGC	TCTTATTAGT	ACTGGGGTCC	CCATAACGCT	2880
55	CCATGGGCTC	AGCGGGAGGC	TGCACGGGAC	CATATTTAGT	CAGGGGGAGC	CAGAGCCCCG	2940
	CTGGTATGCC	AAGCTGGGAA	TTCTTGTTTC	GAGAATTGCG	CCTGGCCTTT	TTGGGTTGTT	3000
	TCCCCGCCAG	GGCCAGGAGG	GAGGACCAAC	TCAAGGACCT	GAGGGTCCGT	GCGCGGGGAG	3060
	CGAGGCGTCC	CCGGCCTGGC	ATGAGGCCAA	CTCTGCCTCG	ACTTCCTTTT	ATGGCCTGAG	3120

	TGTGAGTGCA	TGGAGAGTGG	GAGGGAGGGA	GGGAGAGAGG	GAGGAAAGAA	AGCGGGGTGG	3180
	GGGGGTGGGG	GGGTGGGGGG	GTGGGGGGGT	GCGGAGAGCA	GAGACAGAGA	CAGAGAGACA	3240
	GAGAGACACA	CAGAGAGAGA	CAGAGAGACA	GAGAGACACA	CAGAGAGAGA	CAGAGACAGA	3300
5	CACACACAGA	GAGAGACAGA	CAGACAAAGA	GAGAGACAGA	GACAGAGAGA	CACACACAGA	3360
	GAGACAGACA	GACAAAAAGA	GAAGAGAGAC	AGAGACTTTA	GGGACGTAAT	CATCACAGGG	3420
	AAATCAAAGC	TAAGAGTGTG	ATGAAAAGAG	TGTCAGGTCA	GACAAAAGAG	ACAGGGGCCA	3480
	AGATCCGTAC	AGGGCTAAGG	GACACAGAGA	TTGAGAACAC	CGAGTGGTAA	GGGGGGCAGC	3540
	TGACAGCAGG	TCCCCACAT	TCTCTTAGAG	TCTTAGCATG	CATCCTCCAA	GTGCCATAAC	3600
10	GCAGTAGCAA	CCCCGCTTTC	AACGATGCTC	AGAGAAACCA	TGTTATTGGT	CCCAGGCACC	3660
	CCGGTTGTAG	GGTGAAAAGG	GCTGCAGAGA	ACAAGTTGGA	AAAACAAGTT	TCCCAGCAGT	3720
	CACAGAGGAT	ATGCAGTGAC	TGTGCCGACT	TGTTTTTTTT	TTTTTAAGTC	CCCTTCCCCC	3780
	CCCCCGCCCC	GCCCCCGGCT	TGCTAAGCAC	AACCGGCTTC	GAATCTTAGG	AAGTGGCAGG	3840
	CGAATGAGGA	GGGGATGAGG	GAGAGAGGGT	GGCATCAAGT	CTCCAGTATG	TATGAACAGA	3900
15	AAGAGGTTAA	AATCCAGCTG	GAATGGACCT	AGGGGAAGAA	ATTCTCAAGT	CTCCCTACAG	3960
	ACTCTGAACA	CCGAATCCCT	TTTCTCTAAG	GACGCAGGAT	CTGGGTGGCT	GCAGGGAGCG	4020
	AGGCCTGAGG	CTGTGGGTCA	ACTTGCCAGC	AGCCCCCTG	CGCCTGCGCT	AGGTGGTTCC	4080
	CAGAGGCTCT	GTTCTCACC	TGCAGGGGGC	GCTGGGAAGG	GCAGAGGACC	CTCCACCCCC	4140
	GCCCCGCAGT	CACCTCCCCT	TCCCCACCCT	CGGGTAGCGC	TGACTCTATA	AAGCCAGATG	4200
			transcription start site +1				
20	TCCGAAGCAT	ACAGAGAGAT	TTGGACCATC	CCAGCCTGGG	ATCAGTGTCA	GATCCGAGCT	4260
	CTCCATCCGG	TGTTCTCCTG	CTAGTCCACC	CCAGTAGCAG	ATCTGTAAGT	AGAAGTTGAT	4320
	CCCTTAGGGG	CAAGCCTGGG	CGGTGAGCTT	GAGCAGCTTC	TAAAACATCC	TCCAGGGAGT	4380
	GGGGACCCCA	AGGGGTTCTG	ATTGTCATCT	CTTATAAGGA	CAGTGGAAG	AAGCCCGGTA	4440
25	CAGGACCACC	CTAGACCTCC	CGTGATTACT	CCCATTCTCC	GCACCAAACC	AGCATCCTCA	4500
	GGTTGCCTAT	GAACAGAACC	ACCTGGGAAA	GTGGGGTAGG	TAATTAAGG	TTCTGGCCAC	4560
	TGGGCCCAAT	TCCAGGTATT	TTAAGACTAC	AGTCTAAAAA	GCAAACAAAA	TGGCCTACTT	4620
	AAAAACTAAC	TAGTGACACA	GTGGACAAGT	GAAGTGTGGT	GGAACTGTG	GGTCTGAATT	4680
	CAAATACCAG	TATTGAAAAT	AATAAGAAGT	CTGGGATAAA	TATCCACTGA	ACATCCCCAG	4740
30	AATACTCAAA	ACATGGGTTA	AAGTTTAATG	ACTCTGAACA	CAGGCCGTGT	GTTCTTATTC	4800
	CACTCCTAAT	GGAATGTGCT	GTTGAAAATT	TACTGGTAAA	CAAAAATGCT	TAATGTTAAA	4860
	TAAGGTCTGT	TCTTCCTCTG	TTACTTCCAA	AACACAAATC	TCCATTAAAA	AGGAACCTTC	4920
	TCCAGTTTGG	TTGGGCCCCC	AGATGCCGAG	GTGGGTGCTG	AGGCTCCATT	TGCATCCCCC	4980
	ACACTGAGTG	AGCAGACGAT	GGATTTTGGG	GCTCCTCAGT	GGGAAGGTTA	CTCTCAGGTC	5040
35	AGGGAGAGGA	GCTAGCAGAG	AAATTTATGC	TATTCAGTT	CAGAATTGGA	GAAGTCTTGC	5100
	CATGTCCAGA	AAGCACCTTT	CAAAGTTATG	TCTGTCAGAG	AACAGAAAAA	TTTTTTTTGA	5160
	AAGCCAGGAC	AAGGCTGCTT	TGGTCTTACT	ACTAAGAACT	GAAAAACTGC	TGACTTGCTG	5220
	GGAAAGAAGG	AAATCCGGTT	GTGTTTGTTA	AACTACTCTG	CTTCGTTGGT	TTCCTGGGGG	5280
	AGGTTTTTTT	TTAGTTTCA	AATTCAATAT	GCTATTTTAG	ACTCAAAGAA	AGACAGGTCT	5340
40	GAAAGTCTCT	CATAACAAGA	AACACTTTCT	CTTTTATGAT	GTTGTTGATG	GCACACTTAA	5400
	CAAGCCAGGT	GCTTTAACAG	CGTTTAGATG	GAAGTGGGTT	CTTTTAATCA	TCATATACAC	5460
	CTTACCTTGT	CTTGACATCT	CTGTTTTTCC	CAAAACCAAA	ATTTGTTGGA	CTCCTGTTTC	5520
	TGATGGATTG	AGTGTTTCCA	GCTTCCATCA	CTTTTGAAG	AAGATTGAAA	CTGATCTTTT	5580
	ACCAATTTAA	AATGACAGAG	ACTGTCTTTT	AAATTTTGTT	GATGTTGTTG	TTTCCCTGTG	5640
45	GATGTGGTAG	GGTTCCAGGA	GGCTGGCGTG	ATCTCAAACA	TGCCCTGGGC	AAGCCACCCT	5700
	GGAGAAACCT	GGACTTTTAT	TATCAGATCT	GAAATAGAGC	CTCTTCCGTA	CAAGGTAGTC	5760
	ACTATGGATT	TATCATTACT	TTTCTGTGGG	AGGCTGGGCT	GGAGGCAGAC	ATGCCCTTGT	5820
	ATGGTAGTGT	TTTCTATGAG	GCCATTCCCA	GTCCCCCTTG	GCCAATCACC	CAGCCTTTTC	5880
	ATGCAGCCTG	ACTGGCTTGA	GTTCTGGGTA	CTTCTCTGTC	TTTCCCTGTA	GAGATGGACA	5940
	ATGAAGTTCT	TTTTTTCCTC	TCTTTTCTTG	TTTGGAAGTT	CTATTTGTAT	TTTTTTGGTG	6000
50	GAAATTATAT	TCCACATATC	TAATAAGAAC	GGGTGGTGTT	TACATCTAAT	AAACCATTGA	6060
	ATAATTTTGA	AACAGGATAA	AGACGATCCT	TTTAGAAAAA	TATATCCCGT	TTCAAATACT	6120
	CAGAATCAGG	TCTTAACCAC	ATTATTTTGC	CAGGTATGGT	GGCTTGTTGC	TAAAATACTA	6180
	GCACTTGGA	GGCTAAAGCA	AGAGAGTTTG	AGGCTAACCT	GGACTGCATA	GCAAGTTCAG	6240
	GCCATCCTGG	ACTACAGTGG	GAAACACTAT	CTTGGAACAAA	ATAAAAAATA	AAAATCAAAA	6300
55	CCCAGCCTAA	TGGTACATAA	CTTCAATTCC	AGCATCTGAG	GTAAACCAGG	AAGCACAGCT	6360
	GATTAATGAA	CCCAAAGTCA	GCCTGGGCTA	CCTAAGGAAT	CCTATCTTTT	ACAATTTGTT	6420
	GATGCTGTTG	TCATTTTCTT	GATCACTTTC	CCATCTGCAG	AATGGGACTG	TTGAGAACAG	6480
	CCAGCGTGTT	AATGTTTCTG	TAGCACTTGC	TTAGTCTTCT	GAGAAGTAGA	AGATCACTTA	6540
	GCTAGGGTTT	GATCCCCATG	ACTGCAGCAA	AAGAGGAAGA	CTCATTAATT	GGAGTCTTCA	6600

	CAGTAGCCCT	TGGAACCAAT	ACTAATAGTC	TTCACTCCAT	TTCATAAATG	TGGGCTTTGA	6660
	AAACTTTGTT	CTGTCTATAA	AAGATGGGGG	CTCTTACAAA	CTAAGCTTCT	TGTAACCTCA	6720
	GAGCCTAATG	CCCTTTTG	AGCTTTCAAT	AGATAACCCA	TGTGAAGGGT	CTGACACAAG	6780
	GCTGGCACCA	GCAAAGTTCA	GCAGATGGTA	ATTTATAGTA	ATATGACTAG	GGACGCTTAA	6840
5	GAGCATATTC	TGTATGACAC	AGCTGATATC	AAGAAACCCA	AACGGTGGCC	TTTCCCCTAA	6900
	AGCAGAAACT	CACCCCTAAT	TTTCCTTTAG	TGTAAATCTC	ATAGTGGATT	CTTTGCTCCC	6960
	TGGTTCTCTT	TCTGTCACTA	GTGACCTTTT	AGTTACATTG	ATCTATAGGC	TTCAAGGACC	7020
	AGGAGGCACA	GAGTCAAGAG	AAAGGCAAGC	AAGAATTTGA	AGGGAGAAGG	AAACCGCTCA	7080
10	GCACTGTAGC	AAGGGGAGGT	CAGGCTACCA	TGATGCTCCT	GCGCTTCAGG	GAATTATCCT	7140
	CTCAGAATGG	CCAACAGGGT	AGGGACCTGG	CCTGTTCAC	TCAGGCCCAT	TTGAACCTTC	7200
	TTTCTGTTCT	ATGGGTCCCT	ACAGATGAAT	TCAGCCCACT	GTAGACTGGA	AGTTCATCTT	7260
	TAACAGCATC	CAAACGGAAC	ACATACAGAC	CTTCTTTCTT	GTCACTGTCC	CTGAGTCAAG	7320
	CAGCATAAGA	ACTATGTCTG	CCAACCTGCG	AGGGGAAGTT	GCTCAAGATG	CTATGCAAAC	7380
	ACTCCAGCTT	TCCATGGAAG	GGACTTCAGC	ATCTATGGAT	GGTGGTAGCA	AAGCACTCCT	7440
15	CAAGCTGATC	AAAGAATAGC	TGTCCTTTCC	TGCCCCCTCC	CTAATGAAGC	GTGCAGTCAG	7500
	TGACAGAGAC	CTCAGAAATG	TCTTAGGTCA	CCAAAGGTCA	TTCTTGCCAT	CCCAGGCTCC	7560
	AGATTAGCAT	TTTCTCCCTT	TTTATTTCCC	TCCATTTTGC	CTGTCTGCAT	ATGCACTACT	7620
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20	ATTCTTAAAT	AGAATTCTAA	ATTTTTTAAA	GTCAAATTTT	CCTTTTACTC	AAACCTGGC	7800
	ATTTTACAAA	ACATTTTTCA	CCTTATCACA	AATCTTCACT	ATCTTTTCTA	TATCTTTATA	7860
	TCATTGTATG	TTACTTTTTA	TCTGCTACGT	AGTATTCTGT	TACGTATTTA	ATAAAATATA	7920
	CTTGGTGTCAT	GATGCCATGT	ATAAATGGCG	CTTGGGGAAG	TACCCGTGTA	CTAGTTGACT	7980
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25	CTTTTTGATT	TTGGGATATT	TGCACATAAA	TAATTATATA	TTTGTATATA	AATAATGATA	8100
	TATCCTGGAA	ACGAGCACTA	ATTCTTTTGT	TGCCCTGTCT	CTGGGTTTTT	TTTTTTTCTT	8160
	TCCTTCTTTC	TTTTTGTTCT	TGGCCATCCT	GGAGCTCTCT	GTAGACCAGG	TTGTGCTTGA	8220
	ACTATAGAGA	TCCTCCTGCC	TCTGCCCTCC	ACATGCTAAG	ACTAAAGGCA	AGAGCCATCA	8280
	CACCCATCTG	TGAGCACAAA	TCTTGATATT	TCACCTTTGC	TTTATACAGA	TGGTTGTATA	8340
30	GTCAGTCGTT	GTATTCGATG	TTTTTAATTC	TACATTTTCA	CTGTGACCTG	CTACATGAAA	8400
	TTCAAATACA	AACTTGTCCA	CTCACACAAT	ATTGGCCCTC	AAAAAGCTGT	GAGCCTTTGA	8460
	ACTTTTG	TTAAGAATGT	TTAGCTTGTA	TCCGTATTCT	TCGCTTGTA	ACTCTCTTCC	8520
	TGTAATCACA	TGAGTTCCCTA	GCAAAGAGGT	GAATAGATAG	CACATTGGGA	ATCAGCATCT	8580
	GTCTCTAAAT	GGTCTTTGAA	AGAAACTGTA	GATACCTGCC	TGGACCAGCC	AGACCTGTGT	8640
35	CTTAGCACCT	ATTTTAAACA	TTGTTCTACC	TGAGTTGTAA	GATGCAAAAC	ATAGTGGGGC	8700
	TCTGAGGGCC	CAAAGGCCCT	GAACAGGGGT	GACCTCAGTT	GTGTGGAATA	GGGAGAAAGA	8760
	CAGCAGAAGG	AAGGGAGGAA	AGACGGGCAA	GGAGGGGAAG	GTGTTCATGT	GTATGGCTGC	8820
	ATCTAAATAG	AAGCCATGAA	GACTAGCTAT	TGTTTCTCAG	GTCTTCCAA	CTTGCTTTTG	8880
	GAGACAGGAA	CCCTCACCAG	CCTGGAACTT	GCCAAGTAGC	TAATTTGGCTG	GCTCTTGACC	8940
40	CCTAGATCTC	TTTCCCTCC	ACTCTAACGT	TACAACATAC	AGCTCTCTCT	CTCTCTCTCT	9000
	CTCTCTCTCT	CTCTCTCTCT	CTCTCTCTCT	CTCATTTTAT	TTTTTAAAAA	AAATTTTATTT	9060
	ATTTATTAT	ATTTTATTT	ATTTATTTAT	TTATTTATTT	CATGGATGTA	ATACCTGTCC	9120
	TGTCTCAACC	CCAAAATGGG	CATCGGATCC	CATTCCAGAT	GGTTGTGAGC	CACCATGTGG	9180
	TTGCTGGGAA	TTGAACTCAG	GACCTCTGGG	AGAGCAGTCA	GTACTCTTAA	TGCTGAGCCA	9240
45	TCTCTCTAGC	CCTTTCCCCC	TCTTCTAAAA	CATAGTTTTT	GAAGATCTAA	CGCAGATCTT	9300
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	CTTCTAAAGC	AGCTTGAAAA	GCCATTGGGG	TTTCCAGCGT	GTGTGTGGCA	GTGTTACCAG	9480
	GTTATTGTGA	TGGGACAAGT	TCTTATTCTC	TTTCTTCTGA	GGAGGTACCC	TGGAGACCTT	9540
50	GGGGAAAGTGG	GGGTGGTAGG	GAGGTTTATG	GCATTGGGGG	AGGGAGTGAA	GAAGAGATTT	9600
	ACTGTGAGAG	GCAAAAGGAT	TGTTAGATCC	AACAATCTAA	CAAAAAAGGT	CAAACTTTTT	9660
	TTTCTTTTAT	GACCTTAGTT	GTGATAACAG	AAAAATAGTA	ATGTAAGTGA	TGTCCACTTC	9720
	ACAGAATCCT	CATAAGATAT	TCAAGACCAT	AAATGTGGGC	CACTCTTACT	TTGATGCCCA	9780
	GTAGGGGGCC	CCTGAGCAGA	TGCAGCTTAG	TTAATAGGAT	GCTTGCCAC	CATGTTTTGT	9840
55	ACATGTTCCA	CCCTCAGTAC	ACAGCCAGGC	ATCGTAGGAA	ACACTTGTAG	CCCCTAGCAC	9900
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	ATGGGCTATA	GGAGACTGTA	GAGGGCTATG	TGATTAAGAA	CAGATTTGAG	CCCCACAGGG	10020
	CTCCTGGTGC	AGCATGAGTT	TGAGGAACTA	GTGTGTATAG	CATGCTTTTC	CTTCTTCTTG	10080
	GTATGTCAAG	TGACTTTCTA	GACGCAGATG	TGGCATCGAA	CTAGAACTAA	CATTATTGGG	10140

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	CTTGGTGGAT	ACAGCTCAAT	GGGAGAACAC	ATATTGAGCA	TGTACAAGTC	CTGAGTTCGA	10320
5	TCTTCAGTAC	CTCGAATATT	GGCCAACTAA	AAGGAATGAA	TTTAGGGGTG	GGAATAAAGT	10380
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10	CTCCTTTTGA	TGTCATGACT	AGGAAATGGT	GGATACTGGC	ATAGAGTGGG	CTGAACCTAC	10680
	ACTGAACAGC	ACCAGAGAAC	CAGCCAGTGC	CAAGGCCAAT	AGTACAGGGG	CTGAGAAAAT	10740
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	CTGTCTTGTG	GGTCTTTAAT	GGCATTGTGA	TTTTGGTTCT	AGTCATCATT	TCTTTTCGGT	10860
	ATTGAGATT	GAAGTAGGGT	CTGTGTCATG	CTAAGTAAGA	ACTCTGCCAC	TGTGCCATAT	10920
	CCCAACCTAT	GTGGTTGTTT	TGTATCAGGG	TCTCTCCTTG	TAACCCAATA	CTCAAACCCA	10980
15	TCATCTCCTT	CATCATGGGA	CTACATATGT	GAGCAGTTTT	ACTGTTTTTC	CTTCTTCCTT	11040
	GTGTTTTACG	CAATACCTGT	CCTGATATTT	CTTGCTGTAT	TGTCACCTGC	CCATCTTTTG	11100
	AAAATTTTCA	GCTCTGAACA	GAAATGAAGC	AAATCTTCTG	ACAGTAAATG	GAGTTCCTTG	11160
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20	GACAATAAAA	AAACTTGCAA	CTTTTTTTCAG	AAGCCACAAG	ACTGTAAAAG	GACCAACAAA	11340
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	GGGGATGGGA	ACCCAGGGAC	TGTAGCTTAC	TAAAGTGTCT	GCCTGTGGGC	TATACCCTAG	11580
25	CCACCTCCTA	GGACTTTGCT	GTTTATTTAT	TTATTTAGTT	TAGGGCTTTG	TTATTGATTT	11640
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	AACTATTACA	AGCATGCTAG	TATCATTAAT	TTGTGGGACT	CTGAATTCTT	TCCAAGGCAA	11760
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30	GTGATGGGCA	AAAAAGATGT	AGTGTGTGTG	ACATTCATGT	GGTGGTGCAT	GCATGTGTGT	11940
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	TGATGTCCCT	AATCCTTCTC	CAATACTAGG	TTGTAATAGT	ATACATGGCA	AGGCTAGCTT	12060
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35	CCGTTCCCCA	AACCCAAACA	TTCTTGGGCA	CCAGGGTTCC	AAAGCATTCA	GTGTGGAACC	12240
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	TTGGGTATCT	TCTAACTGGG	TGGTGGTGGT	ACATGCCTGT	AGTCCCAGCT	CCTGGGAGGC	15960
40	AGAGGCAAGT	AGATCCGAAT	TCTCGCCCTA	TAGTGAGTCG	TATTAGTCGA	C	16011
						+11,795 (1st intron)	

SEQ ID NO:17

The 5' (-5086) and 3' limits of the Human SM-MHC Promoter-Enhancer LacZ Transgene Tested in Transgenic Mice

5 The number in the left margin refers to the position within an undefined BAC sequence contained in the public database (Accession # U91323 in GenBank). The start site (i.e. +1 position) of the SM-MHC gene corresponds to the BAC position 143,590.

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142201	TTTTGGGTTG	TCTCCCGCCC	GCCGCTCCCG	CCGCTCCCGG	GGAGGGGACG	CGCCCCGGCC
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143281	CCTGCTCGAC	CCCCTTTCTC	TAGGGATCCG	GAGCGTCTGC	GACCGCCTGG	GGCCGGGGCT
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143401	GTGCACCCTT	GTCCCGAGCG	CCCCAGCTCC	TTGCGCTCCC	GCCGGGGGTG	CGCCCTGCAG
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TRANSCRIPTION START SITE +1						
143581	GATTTGGACG	CTCCGGCCTG	GGAGGTGCGT	CAGATCCGAG	CTCGCCATCC	AGTTTCCTCT
143641	CCACTAGTCC	CCCCAGTTGG	AGATCTGTAA	GATAGATTG	TCATTCTGGG	GGCAGATTGC
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145081	GAGGTAAAGT	GTCACACAGC	CAGCAAGTGG	TAGAAGCCAT	TCCCGGGTCA	GTTTGAGTCC
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145981	CGGGAAATGG	GGCTAATGAG	AATAACTCAT	GTTTTTTTGG	CACTTTTTGC	TGGCGAGATG
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146161	GCTAACCAGT	AAGGAAAAGA	AGATTCTACA	AATCTAGGTC	TTTCTAACTC	CAGAGTTTCA
146221	CAGATTACCC	TCATGGGAGG	ATTTGATGAG	CTAATGTGTA	TGAAGGGTTT	AGCACAGTGC
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146341	ATGTTTGCTC	AGTATGGCAT	GGCTCATCTT	TGGCAGAACC	GGGAAGCCTA	AACTATGTGG
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147121	CAACCTCATC	AAAGTTGCTA	GGAAAGGGCC	ATAGAGGCCA	GGTATGGCAG	GTCATACCTG
147181	TAATCCCAGC	AATTTGGGAG	GCTGAGGTGG	GGGGATGGCT	TGAAGTCAGG	AGTTTGAGAC
147241	CAGAGTGGGC	AACATAGCGA	GGCACCATCT	CTACAAAAAA	ATTTTTTAAA	TGAGCTGGGC
147301	ATGGTGGCAT	GCATCTGTAG	TCCTAGTTAT	TCAGGAGGTT	GAGTGAGGCA	GGAGGATTGC
147361	TTGAGCCAG	GAGTTCAAGG	CTGCCGTGGG	CCCTGATTGC	ATCACTGTTT	TCTAGCCTGG
147421	GCAACAGAGT	GAGACTCTGT	CTCAAAAAAA	AGGTGAGGGG	CATAGAACTT	TACTGTACCA
147481	GGCTGAAAAA	TACAAGGCCC	AGAGAGGGCA	AGTGACTTGC	CTAGCATCAC	CCAGCGAGTT
147541	TTGGGCAGAG	CTGAGACTTG	TAACCTCGAAG	ACCTAAGGAT	CTTCCACAGG	CTAATGAATA
147601	GCTTGTTTGT	GCTCAAGGGA	TGAAGCAGTG	AGTTGTTAGG	ACAGGACTGT	GAATAGGGCT
147661	GACATATTCA	GATGTGTCAA	ACATCGCTAA	TGCCATCTCT	GAGTAAATTA	GGCTTCAAAC
147721	AGATCGGGAT	TCTAATCCTG	GTTCCCCAAC	TTTTGCAAGG	GAGGGCCTTG	CATTTACCTT
147781	TCAAGACCCC	GATAGGCTTA	GCAGGAAAAA	GGGAATAATA	GATAATGCCA	CTCTTTCATC
147841	CTTGGAATTT	TTGTCTAATT	ATATGAATTT	ATCTGTAGGA	TAAAT'TCCCA	GAAATGCGCT
147901	TGCTGAGTTA	AAGGGCATGC	GTATCTAAAA	TTAATAGATA	TTGCAAATGA	CTGGCTAAAG
147961	ACATTGCAGA	CCAGGTGCAG	TGGCTCACGC	CTGTAATCCC	AGCACTTTTG	GAGGCGCAG
148021	CAGGTGGGTC	ACCTGAGGTC	AGGAGTTCAA	GACCAAGCCTG	GCCAACATGG	TCTCTGCTAA
148081	ACCCTATCTC	TACTAAAAAT	ACAAAAAATTA	TCTGGGCATG	GTCGTGGGCA	CCTGTAATCC
148141	CAGCTACTCG	GGAGGCTGAG	GCACGAGAAT	CGCTTGAGCC	TCAGAGGCAG	AGGTTGCATT
148201	GAGCCGAGAT	CACACCACTG	CACTCCAGCC	TGGGCAAAGA	GTGAGACTCG	GTCTCAAAAA
148261	AAAAAAAAAA	AAGGCATTGC	AAATTGCAAC	TTGTTGCAGT	CACATATGAC	AGCAGTCCCC
148321	ATCCTCTTGG	CACCAGAGAC	TGGTTTCGTG	GAAGACAATA	TTTTCCAGGG	TGGAGTGGGG
148381	AGGATGGTTT	TGGGATGAAA	CTGTCCCACC	TCATCATCAG	GCATTGGTTA	GATTCTCATA
148441	AGGAACGTAC	AACCTAGATC	CCTTGCAAGT	GGAGTTGGCA	ATAGGGTTTG	TGCTTCTGTG

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148501	AAAATCTAAT	GCTGCTTATC	TGACAGGAGG	CGGAGCTTAG	GCAGTGATGG	TCACTCACCC
148561	ACCGTCCCCCT	CCTGCTATGT	GGCCTGGTTC	CTAACAGGCC	ATTGACTGAT	ACTGCAGCAC
148621	AAGGGTTGGG	GACCCCTGAC	ATAGGAGACT	ATACATTTAT	TTTAAGCTGT	GGTATGCCAG
148681	AATTGTAAAA	TATAAACAC	AGTGGGGCTT	TTAGGGCCAG	AAATAATCAG	TTCTTGCTCG
148741	CTTCCAGAAG	CATCCTTCAC	AGGGGCTACC	GTAACCTCTG	CCAACCAAGT	TCTCTTGTTT
148801	GGGAGGAAAA	AATAGTGTTA	TGCATTAAGA	GAACCTCTTT	CTGGAGTTAC	TTGAAACCAT
148861	TGGTATTTCAG	ATGATTAGGC	AGATGTCACA	AGGCAATAAG	AATGTGACAG	GTTCCACCATT
148921	CACTTTTTTT	CCTGTAAAAG	TGAAGTAGGG	CTTTCTTGCG	AACAAGCCCT	TGGGAGGTGG
148981	GGGGATGTGA	ATGGTGAGGG	GAGGGTAGAA	ATGGTGGAGT	AGGGTCAGGG	GCAAGAAAGG
149041	GACTTTCTGC	TAAGAATTAA	TCGGGTGTCC	ATTTACTCTT	AGCAGAAAAC	TAGGATTAGA
149101	TTCTGGATTG	TACTCCTGAC	TCCAAATTTT	ACAAGTGGGG	GTCTTGCAAT	TACCTTCCAG
149161	GACCTCGGTC	ATCTTAGCAG	GAAAAATAGCA	ATAGCAGGTG	ATGCCACCTT	ACAGAGCGCT
149221	TAGGAGACAG	TGAGATGGTC	TATATAGGAA	CTGTCTGGC	CTGATACCTG	ATGAAATACAA
149281	GGGGCCCAAT	AAATACAGTG	GCTGTTATGA	ATAATAGATC	TAAACTGCCT	TTTTGGTACT
149341	ACTGGGGACC	TGCCAAGCAG	GTGCATTTAG	AGTGCCCAGT	GCCTCTCCCT	GCGACACATT
149401	TGATGCCTCC	CTACACCTGG	ACCAGGCCCT	GAGCGAGGAT	TTCCACTGCA	GAGGTCTTTC
149461	CAGCTGGCGA	ATTGTGTTGC	AGATCAGGTT	CAGAGAACTT	CTGTTTTGCC	TGTGTGGCAT
149521	TCATTCATTC	GTTTATTTGA	AATAGAGATG	GGATCTCACT	GTGCTGCCCA	GGCTAGTCTA
149581	GAGCTCCTAA	TTCAAGCAAT	CCTCTTGGCT	TGGCCTCCCA	TAGTTCTTGG	ATTACAGGTG
149641	TGAACCACTG	TATCCAGCCC	TTTATGACAT	TTAGAATATG	AGCAATTTTT	CTTTTTTCTT
149701	TTTTTTCTTT	TTGAGATGGA	GTCTCACTCT	GTCAACCAGG	CTAGAGTGCA	GTGGCATGAT
149761	CTTGGCTCAC	TGCAACCTCT	ACCTCCCAGG	CTCAAGCGAT	CTTCCCACCT	CAGCCTCCCC
149821	AGTAGCTGGG	ACTACCGGCA	TGTGCTGCCA	TGCCTGGCTA	ATTTTTGTAT	TTTCTGTAGA
149881	GATGGGGTTT	CACCATGTTG	CGCAGGCTGG	TGTCAAACCTC	CTAAGCTCAA	GCGAACTGCC
149941	TGCCTTGGCC	TCCCAGTGTT	GGGATTACAG	ACGTGAGCCA	CAGTGCTGAA	CCCTGCATGG
150001	TATTTAGAAAT	ATAAGCAATA	CTCTAACATC	TGGTCTGGGT	CACCTCTGTAT	TACTTACCTG
150061	ATCTCCAAAA	ACATTTGGGT	TTTTGTCTCT	GGTCCAAAAT	CTTTAGCCAA	TGGCTTGGCA
150121	GTAAAATCCT	GAGGGAAGCT	GTTGACCAGG	TGAGGTGATG	TGCAAATCCT	ATACTCTCTG
150181	GGCTCTGGGA	TATTTAATTT	ACTATTTATT	TATTTATTTT	CAAGACAGAG	TTTTTGCTCTT
150241	GTGCGCCAGG	CTGGAGTGCA	GTGATGGGAT	CTCAGCTCAC	TGCACCCTCC	ACCTCCTGGG
150301	TTCAAGCGAT	TCTCCTTCCT	CAGCCTCCTG	AGTAGCTGGT	ATTACAGGCG	CCCACCACCA
150361	CACCTGGCTA	TTTTTTGTAT	TTTTAGTAGA	GACGGGGTTT	CACCATGTTG	GCCAGGCTGG
150421	TCTTGAACCTA	CTGACCTCAG	GTTATCCGCC	TGCCTCGGCC	TCCCGAAGTA	CTGGGATTAC
150481	AGGCATCAGC	CACCATGCCC	GGCCTAATTT	ACTTTTTATT	AATGCTGAAG	CAGAGAGGGC
150541	AAGATCTTTT	GCCCCTGAGT	TCTTCTGGGA	AAAATGAAAC	TGATGGTAAA	ACAAACTAAA
150601	GCAACCTGAC	ATTCTCAGTT	GGTCCAGTTT	CAGCCCTTTG	ACTGGGAGTC	ACAGACGGGT
150661	CCCATAAAAT	GGTAGAGCTG	GGCCAGCCTA	CCATTGATTT	ATTTTCCCTA	AATGAAAAAT
150721	ACAAGGCCCA	GAGAGGGCAA	GTGACTTGTC	CAGAGTCACC	CAGCAGGTTT	GGGGCAAAGC
150781	TGAGACTCGT	TACTTGACAT	CCTAAGGTCT	TCCAGAGGCT	AATGATTAGC	TTGTTTGTGC
150841	TCAAAAAATG	AAGCAGCCTG	GGCGCGGTGG	CTCATGCTTG	TAATCCTAGC	ACTTTGGGAG
150901	GCTGAGGCAG	GCAGATCGCT	TGAGCTCAGG	AGTTTGAGAC	CAGCCTGGGC	CACAAAGTGA
150961	GACCCCTGTC	TCTACAAAAA	AATGCAAGAA	TTAAAAAATT	AGCTGGGTGT	TCTGGTGCGT
151021	GCCTGTGATC	CCAGCTACTT	GGGAGGCTGA	GGTGGGAGAA	TGGCTTGAGC	CTGGGAGGCA
151081	GAGTTTGCAG	AAAGCAGAGA	TCGCGCCACT	TCACTCTAGC	CTGGGCAACA	GAGCCAGACC
151141	CTGTCTCAAA	AAAAAAGAAT	GAAGCAGTTG	TTGGTCAGGA	CAGGACTGTA	AACAAGGCTG
151201	ACACACTCAG	ATGTGTCAAA	CATCGCTAAT	GCCAAAGGTG	ACAGAGTCAT	TTGTTTTCAT
151261	CCAAACATTC	GAGAAAGTTG	GACGAGGTGA	CTCACGCCTG	TCATCCTAGA	GCTTTGGGAA
151321	GCCAAGGCAG	GAGGATCATT	TGAGATCAGG	AGTTTGAGAC	CAGCCTAGGC	AAAATAGCAA
151381	GACCCCCATC	TCTACAAAAA	ATAAGCCGGG	CATAGTGGCC	CACACCTGAG	GTGGGAGGAT
151441	CCCTTGAGCC	CATGAGTTTG	AGCCTGCAGT	AAGCTATGAT	TGCACCAGTC	CACCTCCACC
151501	TGGGCATATA	GTGAGACCTT	TCCCCAACCC	AAAAACATTG	AGAGCAGCTC	TTGATGAGTG
151561	AACCTGTACTT	CGTGGTCAGC	AGTTCTGGGT	AGTAATTTCA	GAGATGTCCT	TTCAGCCCTT
151621	GGAGCTGATG	CAGGACCTTA	AACATGAGCG	ATGGTGGAGG	AGGGAGGGTT	GGGAAGGTGC
151681	ATCAAGGTAG	ATGAAGAGTG	TCCCTGGGGT	TGGGCCAACT	GGCGGTCCGT	CTCTGGTCCA
151741	GTGTGTTTAC	CTTGCCCCCG	TCTGATCTTC	TGCAGTTGGT	ATTCCGAGTT	GAGTTTGACT
151801	AAGTGAGAGC	TGCTCTCAGC	TTTAACTGCC	TTTCCCAAGA	CAGCCCTTGT	TTTTATTCTA
151861	AAGCTGTGGT	TCTCAACTGG	AAGCAGTTTT	GCCACCCAG	GGGACATCTA	GCAGTGTCTG
151921	GAGACATTTT	TGATTGTTCAT	GAGTGAGGGA	AGGGGTGCTA	CTGGCATCAG	GTGGGCAGAG
151981	ACCAGGGATG	CTGCGGAACA	TCCCACAATG	CACGGAAGAG	CTCCCCCTAC	GACACAGAAT

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152041	GACGCAGCCC	AAGAGTCACA	GTGCAGAGTT	TGTGGCCAGC	TGCGGTGGCT	CACGCCTGTA
152101	ATCCCAGCAC	TTTGGGGGGC	CAAGGTGGGA	GGATTGCTTG	AGGCCTGGAG	TTCAAGACCA
152161	GCCTGGCCAA	TATGGTGAAA	CCTCATCTCT	ACTAAAAATA	CAAAAATTAG	CCAGGCATGG
152221	TAGCGCATGC	CTGTAGTCCC	AGCTACTTGG	GAGGCTGAGG	CACGAGAATC	ACTTGAACCC
152281	AGAAACGTGG	AGGTTGCAGT	GAGCTGAGAT	TGCGTCACTG	CACCTCCAGCC	TGGGTAACAG
152341	AGCGAGACTC	TGTGTCAAAA	AAAAAAAAAA	AAAAAAAAAG	CTTAGCAACT	ATTATTACTA
152401	GTATTAGTAT	TATTAATTTG	TCAGGCTCAC	TGAATTTTCT	CAAAAATTTG	GCAAATTTTT
152461	AGGAAAACAT	TCTCAAAACA	TTTGGCAAAT	CTGTGGCTAA	ATGTTGTTTT	GGGGACCCAA
152521	GGCTCGTAGG	AGCAAAACAG	CTTTCAGGTT	TCCGGATCTG	CCAGAGACTC	AAGTGTCTTG
152581	TTGTGTGTTT	TGTGTCTCAA	TGAGGGAAAG	GGGAATATGT	AGCACCTTCC	AGATGGATTT
152641	GACCTTGACT	GCGCCACTGT	TTGAAGAGCT	TCTCAACCTC	CGCAGCTCCA	CCCCAGCCCA
152701	GATATTTTCAG	GGAATTAGGG	TTCCAAGGGG	CATGCTATGG	AAAACACCAT	TCTAGCATGA
152761	GTGGAAGCTT	CTCATCCCCC	ATCTTGCTGT	CTTTTGACCA	AAGCAGATTT	TGCACGTCGT
152821	AACGTGTCAGA	GACATCAAAAG	CCAGAGGGAA	TCCAGCCTGC	TCCAAGCTCT	CCTTTTTTGT
152881	ACAGAGACTG	AATCTTTTGA	CTTGATCTTG	TTTGTGTTTT	TAAGTCTGAG	GTTAGACAGG
152941	GTCCCAGGCA	ATGGAGGCGT	GCGTGTCCCT	TTATTTTTCT	GTTGTAGCTT	TTGCTATTTT
153001	TTCTGACTTT	TAAGGCAACT	CATCCACATG	GCAATTAGGA	AGAGCCCACT	TAGGGCTGGG
153061	CACAGCGGCT	CATGCCTGTA	ATCCCAGCAC	TTTGGGAGAC	CGAGGCAGGC	AGATCACTTG
153121	AGGTCAGGAG	TTCAAGACCT	CAGCCTGGAC	AACATGGTGA	AACCCCGTCT	CTACAAAGAA
153181	TACAGGAAAA	TAGCTGGGCA	TGGTGGCAGG	TGCCTGTGGT	CCCAACTATT	TGGGAGGCTG
153241	GGGTGGGAGG	ATCACTTGAG	CCTGGGAGGC	GGAGGTTGCC	GTGAGCTGAG	GTGATGCCAC
153301	TGCACTCCAG	CCTGGGCGAC	AGAGCAAGAC	CCTGTCTCAG	AAAAAAAAAA	AAAAAAAAAA
153361	GAACTCCACT	TTACTTGTCAC	TAGTGCTTAG	AACAAATGAA	ACACTCTCCT	AGCCCTCTTG
153421	GGATGTAATT	GGCTACCATC	TGCACAAACT	CTTCATTATT	GCACAAGAAT	ATCAATATAC
153481	TTAATGCTAC	TGAACTGTGT	TTAAGTGGCC	GAGGTGGTGA	ATGTTAGCTG	TATTTTACCA
153541	CAATTAAAGA	TAAGAGGGAA	GGAAAATGAA	GTGTACTTTA	CAACCAAAAA	AGTACGCTTG
153601	ATGTGCAAAA	AAGTGTGCAG	CTTGATGAAT	TTTCAAGAGG	ATATATTTTT	TATAGATGGG
153661	GGTCTCACTC	TGTCACCCAG	GCTGCAGTGC	AGTGGCATGA	TCATGGCTCA	CTGCATCCCC
153721	GACCTCCTGA	GCTTAAGTGA	TCCTCCCACC	TCAGCCTCCT	GAGTAGCTGG	GAAGTGCAGG
153781	GCACACTATC	ACAACCGGTT	AATTTTTGTA	TGTTTGCTAG	AGACAAGGTT	TCACCATGTT
153841	GACCAGGCCG	GTCTCAGCCT	CCTGGGCTCA	GGTTATCCTC	CTACCTCAGT	CTTCCACACA
153901	GGTAATTAAA	AAACATTTTT	TCTTAGAGAT	GGGTCTTGCT	GTGTTGGCCA	GGCTGGTCTC
153961	AAACTCCTGG	GCTCAAGTGG	TCCTCCCATC	TGGGCTTCTC	AAAGTGTCTG	GATTACAGGC
154021	GTGAGCCATG	TCACCTGGCC	CAACAGTTTG	ATGAATTTTC	AGAAAGTGAA	CACTCATAGG
154081	GCTGGCATTG	AGATGAAGAT	CTAGAGGTCA	ACCCCTCACAA	GCCCCCTCA	CGTTCTGTCC
154141	TTGCAATCAT	TGCACACCGG	AGACTCATTC	ATTCCTTATC	TGAGTTCTAT	CACCGTAGAT
154201	TAATTCTGCC	TGGTTTTGGA	CCTCAGTTCA	ATAGTCACAG	AACCTGTGCT	TTTTGTGACC
154261	ACCTTCTTTT	GCTCAAGGAT	GTGTTGTGAG	ATGTCCTTTT	TTGTGGTGTG	GAGCTGTAGT
154321	TTACTTCACC	TGATTTCGAGT	CCTATTTTGG	GTGTTTGTA	TGTGTCAGGT	ACTGTGCCAG
154381	GTGCCTTACA	GGATTGATTG	CTTTATGGGC	ATCTGACAAG	CCCACCCACC	TTATGTGAAA
154441	GGCAGAACCA	AATAGACTCC	AGAATGAGAC	CCAGGTTTGG	GTCCCAGCTC	TGACACTTCT
154501	TTTTTTTTGA	GATGGAGGCT	GACTGTTCG	CCAAGGCTGG	AGTGTAGTGG	TATGATGTCG
154561	GCTTACGGCA	ACCTCCACCT	CCCGGGTTCA	ATGATTCTC	CTGACTCAGC	CTCCCAAGTA
154621	GCTGGGGCTA	CAGGCACGTA	CCACCAATCC	TGGCTAATTT	TTAATTTTTG	TATTTTTAGT
154681	AGAGACAGGG	TTTCACAATG	TTGGCCAAGC	TGGTCTCAAA	CTCCTGACCT	CAAGTTATCC
154741	TCCCACCTCA	GCCTCCCAAA	GTTCTGGGAT	TATAGGCATG	AGCCATCACA	CTCGGCCTAC
154801	TTGTGATCAA	TCTTACTTCA	TCTTCACACC	CTCCCATTTT	TCTTACGCAT	CCTCCAGTTT
154861	CTCTCTCTCT	CTCTCCTTCT	TTTTCTCTCT	CTCTCTCTCA	CACACACACA	CACGATCTGC
154921	TGCGACACCT	TAAGAAACAA	GAGATTATCA	GGGAATGATT	GAATATTTTG	CCGCATTTCC
154981	TATTTTGCTG	CCTGTTTAAA	CTAACCTTGG	TTATACTATT	AAAAGAAGAC	CGCTCGTATC
155041	AAGCCACTTC	TGTGACTATG	GCTGCTCAGA	AATAAACATA	ATTAAACAT	CCAACGTAG
155101	TAAATGCTAT	TGGTTAGGAA	TGAGCGAAGT	GGCTTAGAGT	CACCGGAAGT	GAGAAAGGGT
155161	ATAGAAACAG	AAGGTACTTG	GTGTAGATCA	GGGGTGTCCCT	ATCTTTTGGC	TTCCCTGGGC
155221	CACCCAGAAA	AAAGAAGAAT	TGTCTTGGGC	CACACGTAAA	ATACACTAGC	ACTAATGATA
155281	GCTGATGAGC	TAAAAAATA	AAAAAATATC	GCGAAAAAAT	ATCATACTGT	TTTAAGAAAG
155341	TTTATGAATT	TGTATCGGGC	CACATTCAAA	GCCGTCCTGG	GCCCCATGCA	GCCTGTGGGC
155401	TGCAGGTTAG	ACAAGCTTGG	TGTAGAGAGT	TTCATCTAAA	CTTCATGGCA	GCTCTGCAGG
155461	GCACCCGTTA	GGTCCCCAGT	ATTAATATAC	AGTAAATCTG	AGTCTCAGAT	CTACGTAAGT
155521	CACCCAGAAG	CACGCATTCT	GCAGTGGCAG	AGTCACGTTT	GAATTAGCAT	CTGATTGCAA

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155581	AGTCTGGGTG	TCTTTACATG	ACTACAGGTT	ATCTTACCTC	TCAAGAGGAG	GCAACCAATC
155641	AAATGTTGCC	AGCACCAATG	AACTTGTA	TTATTTAGGC	TCAGAAAGAT	CTTTTAGGCT
155701	AATGAAAATG	CCCTATATTT	ATGAAATGTT	CTCGTTCTCT	GTGGCTTTCT	CTTTTTTGAG
155761	ACAGGGTCTC	ACCCTGACAC	CCAGGCTGGA	GTGCAGTGAT	GTAATCATAG	CTCACTGCAG
155821	CCTCAAACTC	CTGGGCTCAA	GCAACCCTCC	TGCCTCAGCC	TCCTAGTAGC	TGGGACTACA
155881	AGCACGCATC	ATCATGCCTG	GCTGATATTT	TTTTTAAGGG	ATGGGGTCTT	GCTATAATGC
155941	CCAGTCTGGT	CTCGAACTCC	TGGGCTCAAG	CAATCCTCCT	GCCTTGGCCT	CCCCAAATAT
156001	GGGATTATAC	ATGTGGGCTA	CTGCCAGCCT	CTTTTCTTTC	AATTATTTTT	TAATCTATGG
156061	GTTCCCTCC	TTTTTGTTTG	TATTTTATTT	GTTAAAGAAA	GAGAGTACTG	GCCGAGCGTG
156121	GTGGCTCACA	CCTGTAATGT	CAGCACTTTG	AGAGGCCAAG	GCCGGTAGAT	CACCTGAGGT
156181	CAGGAGTTTG	AGACCAGCCT	GGACAATATG	GTGAAACCCC	GTCTCTACTA	AAAATACAAA
156241	AATCAGCCAG	GCGTGGTGGC	ATGCACCTGT	AATCCTAGCT	CCTCGGGAGG	CTGAGGCAGG
156301	AGAATCACTT	GAACCTAGGA	GGTGGAGGTT	GCAGTGAGCC	AAGATCCCGC	CATTGCACTC
156361	TAGCTGGGCG	ACAGAGCATA	GTCTCTCACC	TTTGGGAGTT	TACTGCATTG	TTTAGCATGC
156421	TCTCCTGTGC	CTTGCAATTT	CCATAGACAG	GCGTCAGATC	TGGAGGCTTC	ATCACCTTCA
156481	TCCCCATCT	CCATCCCCTT	TTCTTTTGAG	CAAGAATATG	TCATTAGTGG	TAACGGCACT
156541	TCCTGTAGTG	GCCCATCTGC	AGGCATGTAA	TGTTTATAAT	GTCTAGTCAG	CTCTCTCTTT
156601	TTGTGATGTT	AGGGTTAATT	AGTAGATTTA	GGTGATGGCA	GGCGGACCCA	TCCCTTAAAA
156661	ATTCCACAAG	AGCTCTTCAT	CTGATATAGT	CAGTCTTGTTG	GTGGGGACCC	TAGACCAGCA
156721	TCATCATCAT	CACCCGGAAG	CTGGTTAGGA	ATGCATATTC	TTGGGCCCCA	TCCCAGTCCT
156781	ACTGACTCAG	AAGCTAATGC	ACCAGGAAAT	GTGAGCCCCA	TTGGCCTAAT	GGTTTTAGCA
156841	ATTACTGGTA	GAACCTGCCA	ACTTGCCAAG	ACCCTTTCTT	TCTTCCTTTC	TTTCTTTTTT
156901	TTTTTTTGAG	ACGGAGTCTC	ACTCTGTCGT	CCAGGCTGGA	GTGCAGCGGC	GCATCTCCAC
156961	TCACCCACTC	ACTGCAAGCT	CCGCCTCCCA	GGTTCACACC	ATTCTCCTGC	CTCAGCCTCC
157021	AGAGTAGCTG	GGACTACACG	CGGCCGCCAC	CACGCCCGGC	TAATTTTTTT	TTTTTTTTTT
157081	AGTAGAGACA	GGGTTTTGCC	GTGTTAGCC	+13518		